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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,856	05/10/2001	Brian D. Butler	30913-1001	6731

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EXAMINER

PATEL, PARESH H

ART UNIT PAPER NUMBER

2829

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,856

Applicant(s)

BUTLER ET AL.

Examiner

Paresh Patel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ³/₂ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 4-7, 13-16, 18-20 and 24-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-12, 17 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Claims 4-7, 16 and 28-31 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Claim 13, directed to the species of fig. 6 withdrawn from further consideration since it depend upon or otherwise include each of the limitations of a generic claim as required by 37 CFR 1.141.

Claims 14-15, directed to the species of fig. 7 withdrawn from further consideration since it depend upon or otherwise include each of the limitations of a generic claim as required by 37 CFR 1.141.

Claims 18-19, directed to the species of fig. 10 withdrawn from further consideration since it depend upon or otherwise include each of the limitations of a generic claim as required by 37 CFR 1.141.

Claims 20, 24-27 directed to the species of fig. 11 withdrawn from further consideration since it depend upon or otherwise include each of the limitations of a generic claim as required by 37 CFR 1.141.

Claim Objections

Claim 12 is objected to because of the following informalities: 60-degree point w.r.t. what is not clear .

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Claim 21 is objected to because of the following informalities: "said center conductor" should read --a center conductor--.

Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show element 20, element 110, element 102, element 524 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: at line 19 on page 9 "bucket 400" should read --bracket 400--. At line 12 on page 10, "the outer electrode 510" should read --an outer electrode 510--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-12, 17 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Hadwin et al. (US 4739259) in view Kazama (US 5291129).

Regarding claim 1, Hadwin et al. (hereinafter Hadwin) in fig. 1-3 discloses: a coaxial probe [10, 12, 14] for testing of planar electric transmission line structures, said probe comprising:

a probe mount [10] comprising a coaxial connector [44];

a center electrode [26, 28] mounted on said probe mount and electrically connected to a center conductor [30 connecting 26, 28, 34, 38 to 18] of said coaxial connector, wherein said center conductor may be placed in contact with a first point [a point on central lines of fig. 2] on a planar electric transmission line structure [lines 9-15 of column 1] to be tested, an outer electrode [14] mounted on said probe mount [10] and electrically connected to ground [via 16, 44 and 18], said outer electrode in contact with a second point [a point where 14 connected to central line of fig. 2] on the planar electric transmission line structure to be tested; and

a dielectric of non-uniform thickness between said center and said outer electrodes [air as dielectric between 26 and 14 of fig. 2].

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Hadwin do not disclose said outer electrode comprising a **protrusion** to be placed in contact with a second point on the planar electric transmission line structure to be tested. Kazama in fig. 23-24 discloses a said outer electrode [72] comprising a **protrusion** [92, 92a] to be placed in contact with a second point on the planar electric transmission line structure to be tested. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the coaxial probe of Hadwin with the protrusion electrode as taught by Kazama, in order to make reliable good electrical contact with circuit traces of device under test to prevent error test data during testing.

Regarding claim 2, Hadwin discloses: the probe of claim 1 wherein said probe mount comprises a conductive plate [16].

Regarding claim 3, Hadwin discloses: the probe of claim 2 wherein said dielectric comprises air [an air between 26 and 16].

Regarding claim 8, Hadwin and Kazama do not discloses: the probe of claim 1 wherein said outer electrode comprises a conductive tube having a non-circular cross-section. Instead, Kazama discloses an outer electrode comprises a conductive tube having a circular cross-section [72, 33]. However, outer electrode comprises a conductive tube having a **non-circular cross-section** is an obvious matter of a design choice, since it has been held that change in size, shape or proportion is unpatentable. One having ordinary skill in the art can change a non-circular cross-section shape of outer electrode even with constant use. The only difference between the Kazama and the claim is recitation of non-circular cross-section shape and it will not perform

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differently than the Kazama's outer electrode. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In Gardner v. TEC System, Inc.*, 725 F.2d 1338, 220 USPQ 777; and *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 9, Hadwin and Kazama do not disclose: the probe of claim 8 wherein said outer electrode has a cross-section selected from the group consisting of oval, square, rectangular, hexagonal, L-shaped, and U-shaped. However, outer electrode has a cross-section selected from the group consisting of oval, square, rectangular, hexagonal, L-shaped, and U-shaped is an obvious matter of a design choice, since it has been held that change in size, shape or proportion is unpatentable. One having ordinary skill in the art can change a cross-section shape of outer electrode even with constant or multiple use. The only difference between the Kazama and the claim is recitation of cross-section shapes and these shapes will not perform differently than the Kazama's outer electrode. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In Gardner v. TEC System, Inc.*, 725 F.2d 1338, 220 USPQ 777; and *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 10, Kazama discloses: the probe of claim 8 wherein said protrusion may be placed at any point on a downward facing surface of said outer electrode [see 72a and 77 in fig. 20] without substantially altering impedance characteristics of said probe.

Regarding claim 11, Hadwin discloses: the probe of claim 1 wherein a pitch between said center electrode and said protrusion is fixed [see distance between 26 and 14 with 10].

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Regarding claim 12, Kazama discloses: the probe of claim 1 wherein said protrusion comprises a 60-degree point [inherent to angle of 92a].

Regarding claim 17, Hadwin discloses: the probe of claim 1 wherein impedance characteristics of said probe substantially match those of a coaxial cable attached to said connector [lines 1-20 of column 3].

Regarding claim 21, Hadwin discloses: a coaxial probe [10, 12, 14] for testing of planar electric transmission line structures, said probe comprising:

a probe mount [10];

a center electrode [26, 28] mounted on said probe mount, wherein a (*said*) center conductor may be placed in contact with a first point [a point on central line of fig. 2 where 26 and 30 touches] on a planar electric transmission line structure [lines 1-35 of column 1] to be tested, and an outer electrode [14] mounted on said probe mount.

Hadwin do not disclose an outer electrode of non-circular cross-section. However, outer electrode of a **non-circular cross-section** is an obvious matter of a design choice, since it has been held that change in size, shape or proportion is unpatentable. One having ordinary skill in the art can change a non-circular cross-section shape of outer electrode even with constant use. The only difference between the Hadwin and the claim is recitation of non-circular cross-section shape and it will not perform differently than the Hadwin's outer electrode. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In Gardner v. TEC System, Inc.*, 725 F.2d 1338, 220 USPQ 777; and *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

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Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadwin as applied to claim 21 above, and further in view of Kazama.

Regarding claim 22, Hadwin do not disclose said outer electrode comprising a **protrusion** to be placed in contact with a second point on the planar electric transmission line structure to be tested. Kazama in fig. 23-24 discloses a said outer electrode [72] comprising a **protrusion** [92, 92a] to be placed in contact with a second point on the planar electric transmission line structure to be tested. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the coaxial probe of Hadwin with the protrusion electrode as taught by Kazama, in order to make reliable good electrical contact with circuit traces of device under test to prevent error test data during testing.

Regarding claim 23, Kazama discloses: the probe of claim 22 wherein said protrusion may be placed at any point on a downward-facing surface of said outer electrode without substantially altering impedance characteristics of said probe [see 92, 92a].

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
January 24, 2003


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